
RESEARCH ARTICLE

Holistic mentoring and coaching to sustain organizational change and innovation

Kathryn G. Hollywood, Ph.D.¹, Donna A. Blaess, Ph.D.², Claudia Santin, Ed.D.³, & Lisa Bloom, D.C., FIACN⁴

¹*Concordia University Chicago, Professor of Leadership, Department of Professional Studies, kathryn.hollywood@cuchicago.edu*

²*Concordia University Chicago, Professor of Leadership, Department of Professional Studies, donna.blaess@cuchicago.edu*

³*Concordia University Chicago, Dean, College of Business, Professor of Leadership, claudia.santin@cuchicago.edu*

⁴*New York Chiropractic College, Assistance Dean of Chiropractic Education, Professor, Department of Clinical Sciences, lbloom@nycc.edu*

Abstract. Collaborative problem solving, creativity, innovation, and continuously improved performance outcomes are the normative expectations for organizations in the early 21st century. At the same time, workers seek not only equitable compensation for their efforts, but also opportunities for professional growth and development as well as acknowledgement and valuing of their contributions. As a result, more than ever, leaders face the challenge of creating learning organizations, communities of practice, and systems that promote the full potential of each worker, while attaining or exceeding organizational expectations and goals. An integrated, holistic model of mentoring and coaching consisting of four well researched theoretical frames is described: strengths based leadership, Emotional Intelligence, courageous conversations, and Appreciative Inquiry. The rarely acknowledged, imperceptible, but significant and indelible, neurological and biochemical links that connect the theoretical frames as well as the impact of self-efficacy beliefs and the thoughts and emotions of both mentor/coach and mentee/coachees are discussed. Recommendations for practice and implementation are presented.

Keywords: Holistic mentoring and coaching, strengths based leadership, organizational change and innovation, emotional intelligence, neurochemical and biochemical connections

Introduction and framework

No contemporary organization, large or small, local or global, is immune to change. Change is the new norm. To effectively manage the technological, competitive, and economic forces of the early 21st century, leaders in every sector have attempted to alter the way that their organizations conduct business.

Kotter (1996) and Drucker (1996) offered significant insights on the implementation and management of organizational change. Fundamentally, the organizational mission and clearly defined outcomes must drive change and innovation. In addition, implementation of the organizational change plan must be aggressively assessed. Despite its apparent simplicity, this basic template for effective change continues to elude leaders.

The concept of disruptive innovation, introduced by Christensen (2011), adds an element of complexity to the change phenomena. The concepts of innovation and disruption now serve as essential elements of the change process. Mowrey and Rosenberg (1999) discussed the technological “paths of innovation.” They examined the consequences of the

technological changes that would impact the US workforce. Innovation and disruptive change charges organizational leaders to continually seek growth strategies and processes that are beyond the scope and sequence of business as usual. Creating and innovating new models, designs, processes, or products, however, continues to be challenges for organizations seeking to maintain a competitive edge in the marketplace. Seeking out of the box solutions to workplace problems and innovative pathways to workplace challenges requires a workforce that is poised and ready to accept the roles and responsibilities required to achieve ever changing goals. Organizational leaders must develop an organization's capacity and capability to engage in continuous innovation through workers who are prepared to fulfill the tasks required by constant change.

According to Tushman and O'Reilly (2002), successful, innovative organizations circumvent the murky waters of short-term gains that often result in long-term failures. Typically, short-term gains are achieved by adopting strategies that are aligned with existing organizational structures, systems, and cultures (p. viii). This short-term gain agenda has yielded unexpected performance challenges for leaders in their efforts to implement disruptive innovative strategies. Skarzynski and Gibson (2008) maintain that the capacity and responsibility for innovation needs to be a pervasive and corporate-wide capability that is spread throughout an organization's business and functions (p. 237). According to Anthony, Johnson, Sinfield, and Altman (2008), disruptive innovation challenges organizational leaders to craft a team charter that spells out the team's objectives, degrees of freedom, assumptions, and milestones (p. 221). The selection of workers for this type of team must be supported by leaders' expanding innovative awareness and commitment to building workers' skillsets.

From a worker's perspective, knowing what to do is not the same as knowing how to do it. Skarzynski and Gibson (2008) suggest that workers want to be engaged in work that is challenging and fulfilling and to be integral members of innovative teams. Mentoring and coaching aligns to Fullan's (2008) perspectives on organizational learning. Fullan asserts that organizations need to aggressively pursue their goals and objectives while learning how to get better at what they are doing. Ultimately, he admonishes that learning is the work and the leader's task is one of ensuring [workers'] consistent integration and utilization of *what is known* and to identify *the new learning* that may be required for innovation and improvement (p. 76).

Both mentoring and coaching are a means to support workers' knowledge acquisition and organizational learning. Traditionally and theoretically, role and task distinctions have been drawn between mentoring and coaching (Starcevic, 2009; Webster, n.d.). In the workplace, however, distinctions between the roles and tasks of mentor and coach frequently overlap and are often blurred. Both mentoring and coaching can promote changes in thinking about and doing one's job and developing an *innovative mindset*. Aldeman (2011) underscores the importance of coaching as the facilitation of learning wherein there is engagement that promotes people to think for themselves and generate solutions to issues and challenges in the workplace. Coaching supports new thinking which can lead to a continuous improvement change processes (Prydale, 2011).

It is well documented that personal beliefs, manifesting as self-efficacy, play a significant role in learning and achievement (van Dinther, Dochy, & Segers, 2011; Zimmerman, 2000). Self-efficacy appears to predict performance with better outcomes associated with higher self-efficacy and poorer outcomes associated with poor self-efficacy (Chemers, Hu, & Garcia, 2001; Gore, 2006; Zajacova, Lynch, & Espenshade, 2005). A mentoring relationship can increase the self-efficacy of not only the mentee, but also the mentor (Saffold, 2005), thus elevating an entire organization.

Recent developments in organizational behavior and leadership have brought mentoring and coaching to a more prominent position in organizational agendas. Increasingly, organizational leaders are realizing that mentoring and coaching not only improve performance, but also can facilitate personal and professional development as well as the

commitment and motivation to excel. Coaches are now shifting their traditional focus from task and function engagement to people empowerment, i.e., mentoring. Cameron (2008) considers the coaching process as an attribute of positive leadership. The focus is on supporting individuals to think for themselves and identify their own solutions to work place challenges, tasks, and dilemmas. Rather than tsunamic in nature, this coaching shift is more subtle and individualized allowing the coach and the worker to form a relationship that is more personal and developmental in nature. The shift is intended to unlock each individual's potential in order to maximize their development and performance.

Report

The blending of mentoring and coaching roles represents a more holistic shift based on building upon individual strengths and self-efficacy (Rath & Conchie, 2008), emotional intelligence (Neale, Spencer-Arnell, & Wilson, 2011), courageous conversations, and the appreciative inquiry processes (Orem, Binkert, & Clancy, 2007). The transition involves mentoring and coaching from an asset rather than deficit model. One byproduct of this holistic shift is the development of relationships that are purposeful and productive personally, professionally, and organizationally.

Holistic mentoring and coaching is the process employed to promote the personal growth of the mentee/coachee, first and foremost. The holistic mentor or coach's primary goal is to facilitate the positive development of the mentee/coachees' leadership strengths, emotional intelligence, communication skills, and team engagement. The holistic model is supported by the theoretical frames and research that address strengths based leadership (Clifton & Harter, 2003; Rath & Conchie 2008), emotional intelligence (Neale, Spencer-Arnell, & Wilson, 2011), courageous conversations and communication (Bloom, Castagna, Moir, & Warren, 2005), and Appreciative Inquiry (Cooperrider, Whitney, & Stavros, 2008; Orem, Binkert, & Clancey, 2007).

The role of strengths based leadership in holistic mentoring and coaching

Organizational performance, productivity, and creativity are contingent on the quality and capabilities of the organization's human capital and resources. Human capital and resources are the leading indicators of an organization's potential for growth and sustainability. Strengths based leadership supports leaders in their efforts to establish and execute an agenda for building capacity for effective change, creativity, innovation, and disruptive innovation. Setting the innovative agenda begins with a leader's assessment of organizational strengths which are a composite of the individual strengths of its members. Strengths assessment starts with the leader's recognition that leadership is not something one is born into, but rather potential and something that is developed and cultivated.

Strengths based leadership capitalizes on the talents of the work force as the basis for the consistent achievement of excellence (Clifton & Harter, 2003). Strengths based philosophy is the belief and assertion that an individual is able to gain and grow more, when he or she primarily expends energy and effort to build upon his or her strongest talents, rather than when he or she dwells on and expends time and effort to improve and remediate weaknesses. Building upon and affirming individual strengths also enhances self-efficacy, thereby increasing effort and capabilities as well as promoting more desirable personal, professional, and organizational outcomes. Hodges and Clifton (2004) hypothesized that talents are "naturally recurring patterns of thought, feeling, or behavior that can be productively applied" (p. 257). Strengths are viewed as the result of maximized talents. Specifically, a strength is mastery created when one's most powerful talents are refined with practice and combined with acquired relevant skills and knowledge.

Strengths based leadership serves as the primary theoretical frame in holistic mentoring and coaching; the processes focus on the identification and development of individual,

personal strengths. Buckingham and Clifton (2001) introduced the strengths revolution to organizational leaders. Their premise was simple:

...great organizations must not only accommodate the fact that each employee is different, *they must capitalize on these differences*. It [the organization] must watch for clues to each employee's natural talents and then position and develop each employee so that his or her talents are transformed into bona fide strengths (p. 5).

The strength and sustaining success of an organization and the synergistic culture and climate within it depend not only on the sum of its parts, but also on how the sum of the parts are combined and determined.

Extending Buckingham and Clifton's (2001) principles one step further, an adept organizational leader can hire and position people with specific strengths to *potentiate* an organization's sustainability, productivity, and creative power. The goal is to grow the organization by investing in the development of the strengths of every individual, regardless of place and position in the organization.

Buckingham and Clifton (2001) speculate that only 20% of employees believe that their strengths are aligned to their daily work functions; the remaining 80% of employees are in need of some type of experience to learn about their strengths and how to use them effectively. Receiving feedback and focusing on one's strengths serve as acknowledgement enabling employees to shift perceptions to an asset based strength model and self-efficacy, rather than a deficit and weakness model of work. Applying the holistic model of mentoring and coaching may result in a shift from traditional organizational structures to more functional approaches to meeting organizational needs and productivity.

Far too many organizational leaders continue to rely on positional power, command and control tactics, and relatively punitive measures that focus on individual weaknesses as means to promote worker growth, productivity, and motivation, especially in times of organizational duress. This reactive approach can, and often does, lead to short-term gains and long-term failures. Buckingham and Clifton (2001), however, demonstrated that strengths maximization offers the opportunity to maneuver and manage around individual weaknesses, while developing not only the strengths of individuals, but also the organization as a whole.

The value of engaging a workforce in strengths development is heightened during times of inevitable change and innovation. The organizational disequilibrium, and often apparent chaos, that emerge during challenging times can serve as an opportunity for organizational leaders to provide holistic mentoring and coaching services to their staff, although the implementation of holistic mentoring and coaching is most effective when an organization is in a state of equilibrium.

Innovation, and especially the call for disruptive innovation, can generate new energy, ideas, activities, and agendas. Workers, however, need to be prepared and committed to respond to the challenges. Holistic strengths based mentoring and coaching can serve as a catalyst for worker preparation. Rath and Conchie (2008) believe that organizations that maximize strength development are led by individuals who invest in their own strengths development and surround themselves with people whose strengths differ in order to maximize the work of the leadership team and ultimately the organization. The responsibility to develop workers who are grounded in strengths based learning and leading may be relegated most effectively by the organizational leader to a mentor or coach leader who understands the parameters of holistic training and development.

Applying the Rath and Conchie (2008) framework, a holistic mentor or coach highlights that effective strengths based leaders lead and encourage their managers to lead by

- hiring, observing, and assessing workers for their individual talents, skills, and preferences;

- positioning each person according to his or her unique talents, strengths, and potential;
- challenging and further developing potential talents as bona fide strengths;
- supporting individual and organizational strength development;
- providing frequent, positive, constructive, and evaluative feedback, verbal or tangible, as well as reinforcements and rewards; and
- creating organizational celebrations, acknowledgements, and rituals.

Assess strengths by

- sharing accountability;
- challenging performance;
- focusing on what works;
- being transparent; and
- affirming and supporting.

Ensure that strengths based mentors and coaches are trained to

- seek to learn what each leader and employee uniquely does well;
- identify personal gifts, talents, uniqueness;
- explore contributions made to the work team;
- develop personal growth plans;
- discuss what generates workplace satisfaction and meaning; and
- monitor and collaboratively assess achievement toward goals.

The role of emotional intelligence in holistic mentoring and coaching

Emotional intelligence (Goleman, 1995) is the second theoretical frame of the holistic mentoring and coaching model. Emotional intelligence (EI) is the disciplined practice of

- attending to emotional information from oneself and other people;
- integrating this information with one's thinking; and
- using these sources of personal information to respond and make decisions to help us get what we want from the immediate situation and from life in general (Neale, Spencer-Arnell, & Wilson, 2011, p. 189-190).

EI is a process of developing personal and interpersonal awareness. It involves the often immediate reflective process of awareness and discernment of one's feelings and accompanying thoughts to guide and inform responses and behavior to the feelings and thoughts expressed by another. Awareness and reflection are the basis for empathy and empathic responses; both promote behavioral changes and adjustments that support the growth of the mentor or coach as well as the mentee or coachee, and the organization as a whole.

Neale et al., (2011) suggest that developing EI can lead to sustainable behavior changes that serve to improve and enhance the way one manages oneself and how one interacts with others. For example, some of the known advantages of developing EI are as follows:

- more effective communication skills;
- greater empathy for others;
- more confidently managing change;
- reduction of stress levels; and
- greater personal confidence and spirit of positivity (p. 7-8).

The EI mentor and coach realizes that personal attitudes and behaviors can be developed over time and these changes will potentially impact all areas and aspects of one's life.

Therefore, the holistic mentor or coach extends attention, diligence, and care to the mentee and coachee in hopes of growing knowledge, examining attitudes, developing skills, and often altering long standing habits of mind and heart.

It is important to mention that an effective EI mentor or coach is one who manages oneself and his or her relationships effectively. According to Neale et al., (2011),

... to be a truly effective coach, an individual needs to have a high level of EI combined with the right knowledge, skills and experience of coaching others. This combination will produce an EI coach, an authentic coach who helps coachees to change and develop their performance (p. 52).

Organizational leaders need to know that EI predicts performance and is developmental. Leaders need to acknowledge that a primary organizational goal is to maximize performance and productivity, while minimizing personal and organizational stress for workers.

The contribution of self-efficacy beliefs

Strengths based and EI holistic, developmental mentoring and coaching are fundamentally rooted in and impact the subsequent development of self-efficacy beliefs and their neurochemical and biochemical impact on individuals. Positivity and genuine, performance-based beliefs engender positive outcomes, whereas negativity tends to yield sub-standard performance and less productive outcomes (Chemers, Hu, & Garcia, 2001; Gore, 2006; Zajacova, Lynch, & Espenshade, 2005).

A sense of urgency, as proposed by Kotter (1996) undoubtedly plays a significant role in implementing and sustaining organizational change and innovation. Nonetheless, an overabundance of urgency may create undue stress, undermine self-efficacy beliefs, deter organizational effectiveness, contribute to worker push-back, and lead to organizational short-term gains and organizational toxicity in the form of negative cultural and interpersonal expectations.

In order to maximize overall performance and productivity, leaders must clearly, repeatedly, and strategically communicate the organization's core values, intended direction, and the goals of innovative initiatives. Additionally, leaders must provide strength-based support in order to avoid the negative effects of worker stress caused by unchecked urgency or impulsiveness, perhaps intended to achieve short term gains, but without the long term in mind (Skarzynski & Gibson, 2008). Leaders also must invest in their own and workers' EI development to achieve their intended goals. Effective mentors and coaches can develop the EI capacity of individuals, teams, and an organization as a whole. The process is ongoing and long term, one worker, one team, at a time.

In terms of change, innovation, and disruptive innovation, leaders and workers with highly developed EI have the capacity and potential to implement sustaining changes that impact performance and productivity. The changes are grounded in the personal development of EI as well as the collective development of team members and the organization as a whole. Among highly developed EI organizational members, innovative initiatives may be perceived as opportunities to demonstrate their knowledge, attitudes, and skills gained from holistic mentoring or coaching as well as opportunities for further growth and development.

Focusing on the development of EI, a mentor or coach invites a mentee or coachee to reflect on a specific event to help understand and manage associated feelings, attitudes, and behaviors.

The coach

- asks powerful questions that challenge cognitive comfort zones;
- encourages openness to new ways of seeing and experiencing feelings;
- probes effectively for greater insight on the event;
- assesses the perspectives offered by the mentee/coachee;

- reframes the event in positive/constructive manner with the mentee/coachee with an eye toward developing new knowledge, attitudes, skills, and habits (KASH model); and
- appreciates the mentee or coachee and his/her process (Neale et al., 2011, p. 20).

The emphasis placed on EI development in the holistic mentoring/coaching model serves to develop and raise individual as well as collective awareness and responsiveness throughout an organization. Moreover, EI integration serves as a catalyst for positive change within individuals and the organization as a whole to be their best selves. A *best-self mind set* (see Quinn, Dutton, Spreitzer, & Roberts, 2011) may then reverberate through the entire organization leading to doing the best of what an organization does well.

The role of courageous conversations and communication in holistic coaching

Courageous conversations and communication serves as the third theoretical frame that informs the holistic mentoring and coaching model. In recent years, the directive, top down communicative approach to leadership and management has come under increasing scrutiny as less effective as organizations become more globalized and technologically driven. Groysberg and Slind (2012) maintain that five long term trends are shifting the focus from corporate communication to organizational conversations: (a) economic changes from manufacturing to service industries, (b) organizational changes involving flatter structures and more bottom-up communication, (c) diversity and the increasing need to navigate across cultural and geographic lines, (d) generational changes and expectations in the workforce, and (e) technological advances making instant connectivity the norm (pp. 6-7).

Fullan (1993) aptly reminds us, “Problems are our friends” (p. 21) in that they are opportunities for learning. Traditional, top-down, often fragmented, and reactive communications between leaders and workers rarely, if ever, achieve the organizational objective of creating strategic alignment toward the attainment of intended outcomes. Leader aggressiveness, broadcasting, and print media designed to control messages are rarely received as genuine or trustworthy by workers in the early 21st century. Such messages, rather than encouraging worker learning or productivity and creativity, often promote passivity, negativity, low morale, push-back, and costly turnover.

Those individuals who lead organizations in the 21st century may now best serve both themselves and their organizations by intentionally establishing and communicating a clear, informative, and carefully explained organizational agenda as well as engaging in genuine cross-organizational conversations through which all employees are engaged (Groysberg & Slind, 2012). The conversations may take place face-to-face or through electronic means, but as Schwartzman (2010) so convincingly asserted, the best communicators are not the best talkers; often the best communicators are the best listeners.

Berson and Stieglitz (2013) assert that the conversations in which leaders engage must focus on people. Conversations that include genuine listening and questioning, can and often do, include practical guidance and opportunities for personal and organizational growth. Berson and Stieglitz recommend that leaders engage in conversations that (a) build relationships, (b) make decisions, (c) take action, and (d) develop others.

Personal, interpersonal, and organizational learning is led by leaders who facilitate positive energy through modeling, diagnosing, and building positive-energy networks among workers (Cameron, 2008). Positive organizational cultures foster the demonstration of altruism, compassion, forgiveness, and kindness (p. 41) which impact performance, productivity, and organizational health and well-being. Leaders who promote such cultures, according to Cameron (2008), significantly and positively impact an organization’s profits, productivity, quality, innovation, customer satisfaction, and employee retention (p. 23).

Positive-energy networks are created by organizational leaders with whom workers are willing to share their ideas and innovative ways of doing the work without fear of

repercussions. Creating a climate of trust and respect enables workers to engage in courageous conversations that include constructive and candid feedback. Courageous conversations and positive communication are guided to move workers from focusing solely on problems to the identification of solutions, innovations, and new collective meaning. The conversations offer the psychic and physical space and strategies to support workers' collective sharing, listening, exploring, and examining personal and shared assumptions. Often this process results in new ideas, new ways of thinking, and new meaning within the organization as a whole.

The knowledge, skills, mindset, and self-awareness to engage in courageous conversations and positive communication can be learned and developed through working with a holistic mentor or coach. The mentor or coach's job is to help the mentee or coachee become aware of his or her assumptions and interpretations that construct his or her perceived reality and to search for alternative approaches and actions. The exploration of assumptions is guided by effective questioning. Bloom, Castagna, Moir, & Warren (2005, as cited in the Ontario Ministry of Education) propose five types of effective questions for coaching. The questions are designed to (a) establish focus, (b) discover possibilities, (c) plan for action, (d) remove barriers, and (e) review and recap. Within the protected and safe holistic mentoring/coaching space, the mentee or coachee can explore and rehearse new ways of being that support personal and organizational growth and development.

Mentors and coaches are instrumental to organizational learning through conversations and communication. Genuine listening, probing, and responding encourages the development of a worker's recognition of strengths, the development of personal and organizational goals, self-efficacy, EI, and communication abilities. Holistic mentors and coaches model and encourage the development of their mentees/coaches through

- using positive language and avoiding defensiveness;
- checking assumptions and interpretations using effective questioning;
- supporting taking responsibility;
- developing clear attainable goals and expectations;
- offering constructive, candid feedback frequently on observed actions and behaviors;
- exploring new directions and collective meaning; and
- redirecting energy in the workplace.

The role of appreciative inquiry in holistic coaching

Appreciative Inquiry (AI) is the fourth theoretical frame of the holistic mentoring and coaching model. Cooperrider initially introduced the concept of AI as an organizational change strategy (Cooperrider & Whitney, 2005; Cooperrider, Whitney, & Stavros, 2008). The application of AI has since been expanded to include strategic planning, leadership, coaching, teaching, and team building (Stavros & Hinrichs, 2009; Whitney, Trosten-Bloom, & Rader, 2010; Orem, Binkert, & Clancy, 2007; Bloom, Hutson, Ye He, & Robinson, 2011; Whitney, Trosten-Bloom, Cherney, & Fry, 2004). The essential focus of AI is on what an organization or individual does well, what works, and what is "life giving." Although weaknesses and problems are not denied, ignored, or avoided, the acknowledgement and amplification of the positive potential of an organization or individual transforms thinking about change and innovation. Orem et al. (2007) state,

What Appreciative Inquiry has offered to organizations and individuals over the last 20 years is an alternative to focusing on problems to solve and to problem solving. An overdependence on a problem perspective can result in cases of solving the wrong problem or of solving only one problem only to find that a more serious problem has arisen out of the solution to the original one. (p. viii)

The shift in focus from problems, problem solving, and weaknesses is aligned to the strengths based leadership approach of moving from a deficit model to an asset model of engagement. The appreciative approach provides a strengths-based foundation from which creativity and innovation can flourish. Research demonstrates that organizations and people are energized by owning strengths, imagining the future, what they do well, and what brings them satisfaction (Whitney, Trosten-Bloom, & Rader, 2010).

From a holistic mentoring and coaching perspective, the inclusion of AI is a natural progression aligned to the other three theoretical frames. The basic AI process includes four stages: discover, dream, design, and destiny (Orem et al., 2007, p. 84-85). Through mentor or coach questioning, the discovery stage affords the mentee opportunities to reflect on accomplishments and strengths by responding to core questions that explore specific events or experiences, past successes, and personal values. It also is an opportunity for the mentee to acknowledge his or her strengths based on self-assessment and the informal analysis of feedback requested and collected from relevant others. The dream stage encourages the mentee to envision past peak moments and strengths in order to articulate future possibilities and goals. Design involves prioritizing and establishing specific goals and strategies to build on one's strengths. Finally, destiny involves execution, formative assessment, review, and affirmation. Through what ideally will be a repetitive cycle over time between mentor or coach and mentee or coachee, tools for new learning and personal change will be acquired (Orem et al., 2007).

From an organizational leadership perspective, the inclusion of AI into the holistic mentoring and coaching process is a win-win situation. Individuals are encouraged to discover, dream, design, and create their destiny in the form of strengths and contributions. The process results in individuals as well as a workforce that focus their efforts on the four stages of the AI process and the strengths that they bring to the organization for which they work, ensuring greater potential for organizational innovation, profitability, performance, and productivity.

The Effects of Thought and Emotion in Holistic Mentoring and Coaching

A significant, but rarely acknowledged aspect of the interpersonal process of mentoring and coaching is neurological and biochemical in nature. Although the influence of thoughts, words, and beliefs on the body and in performance outcomes have been well documented (Chopra, 2015; Lipton, 2007; Glance & Huberman, 2013; Radin, Hayssen, Emoto, & Kizu, 2006; Spagnolo, Colloca, & Heilig, 2015), these effects remain unexplored in the coaching and mentoring process. Positive and negative thoughts and emotions reach the cellular, genetic, and sub-atomic levels of the human body and may result in a mentor unintentionally negatively influencing the mentor-mentee relationship. In response, the holistic mentoring and coaching model acknowledges and embraces the physical as well as the cognitive and emotional impact of interpersonal interaction. Additionally, the holistic model includes strategies that capitalize on current scientific evidence to optimally navigate mentoring and coaching relationships designed to achieve successful personal, professional, and organizational outcomes.

Thoughts and emotions

Thoughts and emotions are energetic entities that have demonstrable and repeatable physical indicators. The presence of thoughts and emotions can be measured as electrical activity in the brain by electroencephalography (EEG) and by glucose and oxygen uptake in functional magnetic resonance imaging (fMRI, Yoo et al., 2004). The presence and nature of thoughts and emotions can also be detected in the blood as neuropeptides and hormones. Neuropeptides and hormones are chemicals produced in immediate response to thoughts, emotions, physical activity, perceived threat, and food ingested (Lipton, 2007). For example,

cortisol and epinephrine are detectable hormones that are released into the blood during a fight-or-flight response. Their presence can be indicative of co-existing emotions.

Neuropeptides and hormones travel in the bloodstream and bind to cell membranes that produce a matching receptor (Lipton, 2007; Ulrich, 2010). Once a neuropeptide binds with the cell membrane a reaction occurs that impacts the cell's nucleus and genome (Lipton, 2007). Research findings over the last four decades suggest that genetic activity is chemically regulated by neuropeptides that trigger changes in the genome, and not regulated exclusively by changes within the DNA sequence. Neuropeptides associated with positive thoughts and emotions will create different cellular and genetic responses than neuropeptides associated with negative thoughts and emotions. This process, known as epigenetics, provides a direct link between thought and emotion and changes in the body (Curcio, 2012; Lipton, 2007). Emotions provide a chemical bath for the billions of cells in the human body, and although physical appearance may appear unchanged, the functional activity of the body may have changed dramatically (Curcio, 2012; Lipton, 2007).

Beliefs, self-efficacy, and expectations

Belief has been demonstrated to affect outcomes in healthcare. Physician expectations have been demonstrated to have a direct impact on patient outcomes. Spagnolo, Colloca, and Heilig (2015) noted that physicians' attitudes "may contribute to produce placebo and nocebo effects that in turn affect the course of the disease and the response to the therapy" (p. 1). A physician's expectations of treatment outcomes have also been demonstrated to affect clinical decision making and subsequent strategies that alter the course and outcome of treatment (Glance & Huberman, 2013). A similar effect occurs with patient expectations and beliefs about their treatment and their prognosis (Razdan et al., 2015).

The placebo effect occurs when the simple act of receiving any treatment results in a positive effect "because of expectation of benefit" (De la Fuente-Fernández et al., 2001, p. 1164). The power of patient belief in the placebo effect has been demonstrated in the pharmaceutical care of patients with depression and Parkinson's disease (De la Fuente-Fernández et al., 2001; Mayberg et al., 2014). The current research on the placebo effect reveals activation in varying areas of the brain demonstrating the connection between belief and physical effects in the brain (Benedetti et al., 2004; De la Fuente-Fernández et al., 2001; Mayberg et al., 2014). The fundamental principle behind the placebo effect is that belief can influence measurable physical changes, or the perception of those changes. Additionally, the belief or expectation that a positive or negative result will occur following intervention has been observed to change thoughts and behaviors that create the expected outcome (Benedetti et al., 2004). This effect has been demonstrated by physicians and by patients in healthcare (Glance & Huberman, 2013; Razdan et al., 2015; Spagnolo, Colloca, & Heilig, 2015).

Personal beliefs, expectations, and self-efficacy have been demonstrated to play a significant role in learning and achievement (van Dinther, Dochy, & Segers, 2011; Zimmerman, 2000). High self-efficacy has been demonstrated to result in higher test scores and better academic performance than students with poor expectations and beliefs (Chemers, Hu, & Garcia, 2001; Gore, 2006; Zajacova, Lynch, & Espenshade, 2005).

Subtle verbal cues and communication also influence beliefs and physical responses. A study involving hotel maids demonstrated statistically significant physical effects resulting from the addition of a single statement regarding their work (Bower, 2007). A cohort of 84 hotel maids was split in half. One half of the group heard the typical morning instructions involving delegation of work and expectations conveyed by the hotel manager. The other 42 maids heard the same instructions plus a short statement that noted their work was also exercise and would improve their health. After 30 days, the group that heard their work was exercise indicated that they felt that they were getting more exercise, lost an average of two pounds, lowered their blood pressure by almost 10%, and exhibited positive changes in body fat, body mass index (BMI), and waist-to-hip ratios (Bower, 2007). The group that heard the

basic instructions without the positive health directive experienced no significant changes (Bower, 2007).

Thoughts have been demonstrated to transcend space and can measurably impact others. The effects of thought and belief on intentionally targeted recipients have been demonstrated in studies on compassionate intention (Radin et al., 2008). Paired subjects were designated as the “sender” or the “receiver.” The senders were instructed to start and stop sending healing thoughts to their remotely located receiver at random intervals. The findings demonstrated that the healing thoughts created measurable synchronous autonomic nervous system changes in the recipients of the healing thoughts (Radin et al., 2008).

Similar studies performed on water molecules demonstrated the differing effects of positive and negative thoughts on the crystallization patterns of water molecules (Emoto, 2004; Radin, Hayssen, Emoto, & Kizu, 2006). These experiments were initiated by a study involving 2000 people in Tokyo sending “Hado,” (healing prayers), to a specific beaker of water in California. Other beakers of water were distributed locally as controls. The esthetic measure of the crystals formed by the water receiving the prayers and healing thoughts was considerably higher than the water that did not receive prayers and healing thoughts (Radin, Hayssen, Emoto, & Kizu, 2006). A possible relevant consideration is that the human body is more than 50% water (Watson, Watson, & Batt, 1980).

Subatomic particles are also subject to the effects of thought. Matter is composed of molecules, molecules are composed of atoms, and atoms are composed of subatomic particles. Given the variables such as friction coefficient, temperature, velocity, and time it is possible to predict the results of experiments and to repeat those results in the physical world. In contrast, the subatomic realm is unpredictable. The components of the atom react to thought and the results of subatomic experiments appear to change with the expectations of the observer (Andrews & Salka, 2014). Experiments documenting these effects have been completed using photons, subatomic particles, electrons, and even molecules as large as Carbon 60 (C60) (Akoury et al., 2007). Inescapably, all physical matter is composed of subatomic particles leading to the possibility that thought affects matter.

Thoughts, emotions, beliefs, self-efficacy, and expectations appear to have a direct effect on outcomes. It is reasonable to extrapolate the research and principles described to mentoring and coaching relationships. A mentor or coach’s beliefs, feelings, and attitudes may affect expectations, decisions, and ultimately the effectiveness, and quality of the mentor-mentee relationship. The holistic mentoring and coaching model assists the mentor or coach in creating an environment that embraces and supports the mentee’s sense of value, self-efficacy, and development.

Practices to address thoughts, emotions, and beliefs

Like marriage or partnership, the nature of a mentor-mentee or coach-coachee relationship is complex and rarely is reduced to a simple one-on-one interaction. It is known that “effective mentoring necessitates a certain chemistry for an appropriate interpersonal match” (Jackson et al., 2003, p. 328). Unrecognized or unacknowledged negative emotions may augment and complicate interpersonal difficulties in the pairing of mentor and mentee by predisposing both participants in the relationship to negative expectations and outcomes. Techniques to support the implementation of strengths based, emotionally intelligent, and courageous conversations as well as ongoing appreciative inquiry are likely to be beneficial to mentee and mentor outcomes.

Bracketing and journaling are essential components of a qualitative study, primarily because it is understood that the researcher is, in fact, part of the research (Merriam, 2009). The intent of bracketing and journaling is to allow the researcher to expose potential biases and “to mitigate the potentially deleterious effects of preconceptions that may taint the research process” (Tufford & Newman, 2012, p. 80). Bracketing is a process in which the researcher reflects on his or her experiences and beliefs, and how those experiences and

beliefs create the lens through which they view the world. The overarching purpose of bracketing is to allow the researcher to become immersed in the research while reducing the potential for personal interference in the data gathering process or in the interpretation of the data. Journaling is a process used to sustain an inquiring lens free of preconceptions and social constructs. Once formally disclosed, a regular discipline of self-reflection through journaling can assist a researcher in identifying any complicating beliefs or biases (Creswell & Miller, 2000).

Thoughts, beliefs, and expectations are powerful influences, whether they are acknowledged consciously or remain subconscious. Trends in scientific knowledge support the possibility that a mentor's intentions, thoughts, and emotions toward a mentee may have a direct effect on the mentee and his or her self-efficacy and performance. A mentor must be mindful of avoiding negative thoughts, emotions, or language toward a mentee at all times as research supports the fact that the effects of intentional thought may be synchronous and not limited to face-to-face experiences (Radin et al., 2008, pp. 240-241). This effect may also hold true for mentees regarding their mentors. Therefore, the potential benefits of the ongoing processes of bracketing and journaling equally apply to mentors and mentees.

Challenges in a mentoring or coaching relationship may result from unconscious or unacknowledged interfering factors generated by the mentor's past experiences, expectations, generational issues, gender, or any other affiliations or experiential events. Nonetheless, it is the mentor or coach's responsibility to refrain from reacting or projecting their personal realities, when responding to a mentee or coachee. Conscious efforts and disciplined practices on the part of mentors and coaches to become aware of their own personal biases and perceptions in their relationships with their mentees and coachees serve to reduce interference and elevate the process.

Although the concepts of mental and emotional discipline appear simple, they may not be easily implemented and require deliberate effort and practice. Conscious suppression of thought and emotion has been demonstrated to have a paradoxical effect on the frequency of unwanted thoughts (Abramowitz, Tolin, & Street, 2001; Erskine et al., 2012). The stronger the urge to suppress a thought, the more frequently the thought occurs. Therefore, proper training in mindfulness and mental discipline may be beneficial as part of mentor and coach training (Hooper, Stewart, Duffy, Freegard, & McHugh, 2012; Wegner, 2011). Techniques to train the mind and to recondition mentor or coach attitudes and perceptions that support mental and emotional discipline are likely to be invaluable tools to achieve a more complete understanding of the potential cognitive and physical impact of mentor-mentee and coach-coachee interactions.

In addition to bracketing and journaling, a mentor may find it extremely beneficial to develop a disciplined mind and emotionally non-reactive mental state prior to and during mentor-mentee meetings. Positive outcomes in mentoring are linked to paying positive attention to the mentoring relationship (Tillema, Van Der Westhuizen, & Smith, 2015). Therefore, acknowledging the role that the thoughts and emotions of the mentor play in creating successful developmental relationships may overcome difficulties and maximize relationship outcomes. Although it may be intuitive that negativity and reactivity are undesirable, a scientific basis for the reason and range of effects in mentoring and coaching may alert mentors and coaches to be especially vigilant in this significant developmental process.

Holistic mentoring targets this body of research on thought and emotion by emphasizing the principles of strengths-based leadership, emotional intelligence, courageous conversations, and Appreciative Inquiry to focus on individual strengths and develop mentoring relationships that are primarily positive, purposeful, and productive. The emphasis on a positive thinking and emotional foundation translates into creativity and productivity in the workplace.

Conclusion

Clearly the landscape of leadership development as well as the mentoring and coaching of aspiring leaders and innovators is changing. The new norm and current demand placed on organizations for innovation, sustainable performance, and productivity requires strategic and constant engagement in the process of change. Organizations and their leaders cannot stand still and rely entirely on prior performance or existing support structures to ensure productivity, creativity, innovation, or job satisfaction. Although a match of skills and values remains important hiring criteria, workers today seek not only equitable monetary benefits, but also stable career and financial pathways as well as growth opportunities. Workers are likely to actively seek better employment and growth opportunities in five or less years after initial employment in search of even greater stability as well as compensation, benefits, and respect (Casserly, 2013). The rapid attrition of employees places even greater hiring, training, and financial demands on organizations.

Traditionally, managers have assumed coaching roles and responsibilities as a command and control approach (Starr, 2011). A shift to more focused, deliberate, positive, and holistic mentoring and coaching approach that encourages and allows workers to discover their strengths and potential contributions, think and engage with others collaboratively, and generate their own approaches and potential solutions to workplace challenges and dilemmas requires a different mindset. The paradigm shift offers an opportunity for managerial training and growth as well as employee growth and commitment. Greater organizational leadership attention and investment are required for a more holistic mentoring and coaching process to take root, contribute to leadership succession plans, and provide a return on investments. Ultimately, strengths-based leadership is an investment in an organization's culture, climate, and overall worker capacity. A model of holistic mentoring and coaching is described to increase organizational performance and productivity as well as support and sustain change and innovation. The model is based on four well researched and fundamental leadership frames: strengths-based leadership, Emotional Intelligence, courageous conversations, and Appreciative Inquiry. The frames are integrated to address the 21st century mandate to ensure organizational performance, creativity, innovation, and sustainability. Evidence drawn from neurological and interpersonal chemistry research provides additional, substantiating support for holistic mentoring and coaching.

Holistic mentoring and coaching may offer leadership and management an alternative opportunity to realize innovative organizational goals and objectives as well as enhance professional growth and development among workers and in organizations as a whole. Maximizing performance and productivity to support and sustain change and innovation as well as the retention and growth of workers needs to become a major learning objective of organizational leaders and organizations. Holistic mentoring and coaching is a potential means to achieve these organizational outcomes.

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